#353
429.5

PLUMAS THINNING PROJECTS

Examination of June 15, 1934

Examination was made of the Massack thinning project area and the Big Bar thinning area on the Plumas National Forest on June 15, 1934. This is the first examination of areas in this forest and it is intended to continue them at intervals.

MASSACK PROJECT

Old and new slash was examined in Section 23, T 24 N, R 10 E. Little insect activity, other than would be expected, was found in the slash and no attacks were noted in the leave trees.

The larger felled trees showed attacks by the western pine beetle, but, because of the exposure to the sun's rays, it is not expected that much brood will develop. Ips, on the other hand, appears to have attacked abundantly and to have been able to complete a satisfactory development in the lopped poles. Few new attacks on recently cut material appeared although it was evident that somewhat greater attraction existed in the unlopped material than in the lopped poles. It is considered that lopping reduces transpiration and thus creates more favorable moisture conditions for the Ips broods. If the unlopped material attracts the insects then, due to transpiration dries out before the broods mature and destroys them, the benefits of using that method would be great. Development of broods, particularly in relation to moisture conditions of the lopped and unlopped poles should be watched.

BIG BAR PROJECT

Although the site in this area is the best encountered in any thinning area I have examined and the tree growth is as great as any I have encountered, it is the first area in which an out and out insect attack of leave trees, unattended by complication organisms, has been found to have occurred.

The area has been worked since May 28. In ponderosa pine, leave trees were attacked by D. valens abundantly and D. brevicomis and D. monticolaewere found in the initial stages of what appeared to be a successful attack. Much greater and more important activity was noted in the sugar pine leave trees and that species appeared to be much more susceptible to injury under the conditions occurring in this area. D. valens was attacking in large numbers and in most trees examined was successful and seemed capable of nearly girdling the root crowns. Ips confusus had attacked several leave trees above the valens attacks.

Stumps, left in the thinning process, were heavily infested by the barkbeetle species mentioned above as attacking the green trees.

There appeared to be a connection between the presence of stumps infested by insects and the leave trees similarly infested. It appears that, where pine, either sugar or ponderosa pine, was cut from pine thickets that trouble developed and the infestations in the leave trees were more abundant.

As the insect attacks were not sufficiently developed to determine the effectiveness of the activity, it was recommended that the development of the insects be watched for a week. During this interval the work should proceed as usual. If, after a week, there is every indication of a normal attack and egg laying activity takes place, changes should be made in the working methods.

Possible changes in procedure might be as follows:-

1. Cutting of fir and oak species alone.
2. Cutting of fir and oak species and such pine as is more than 6 feet distant from the nearest pine leave tree of the same species.

These changes should eliminate immediate infestation of leave trees although cutting of any pine will not eliiimate possible future trouble resulting from the breeding of Ips in the slash. Attacks by both Ips and D. brevicomis were found in the slash. However, it is not considered there is danger from the western pine beetle attacks due to the scarcity of suitable material. There may, however, be trouble in the future from the engravor beetles as their attacks in slash and leave trees indicates a fairly good source of supply. There are no immediate sources of infestation visible in the area although some rather extensive 1933 Ips killed trees were noted several miles away and to the east of Frenchman Creek and these may have furnished the population.

Berkeley, California
June 17, 1934

K.A.Salman
Associate Entomologist.